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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,503	03/30/2004	Jennifer Arden	EMC-040PUS	3245
51576 7590 11/27/2007 EMC CORPORATION c/o DALY, CROWLEY, MOFFORD & DURKEE, LLP 354ATURNPIKE STREET SUITE 301A CANTON, MA 02021-2714			EXAMINER BENGZON, GREG C	
			ART UNIT 2144	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/812,503

Applicant(s)

ARDEN ET AL.

Examiner

Greg Bengzon

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 07/30/2004
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This application has been examined. Claims 1-63 are pending.

#### ***Priority***

The effective date of the claims described in this application is March 30, 2004.

#### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 07/30/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Specification***

The disclosure is objected to because of the following informalities:

Applicant Specifications Paragraph 90 describes devices not yet known and are thus undefined.

37 CFR 1.71 states that the specification must be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention pertains to make and use the same.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18, 20-21, 30-44, 46-48, 54-60, 63 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559).

Luo disclosed (re. Claim 1) a method of displaying alert information for objects in a network, comprising: determining at least one potential root cause of one or more triggers in the network; (Luo-Column 8 Lines 1-10, '*an indication that a fire has been detected at a particular network element, an identity of a particular port that has failed*') and displaying a topographical network map (Luo-Column 10 Lines 25-30, '*network topology window*') including network objects associated with at least one of the one or more triggers. (Luo-Figure 7, Column 9 Lines 55-65, '*visually map outstanding trouble tickets*') )

While Luo substantially disclosed the claimed invention Luo did not disclose (re. Claim 1) storing performance information for the network objects at predetermined time intervals.

The Examiner notes that at the time of the invention it would have been well-known in the networking art that monitoring operations involve polling for device status at predetermined time intervals, and upon receiving said status, storing the performance information.

Furthermore Goldstein disclosed (re. Claim 1) storing performance information for the network objects at predetermined time intervals. (Goldstein-Column 5 Lines 10-30, *'measurements taken over relevant time period'*).

The Examiner notes that Goldstein has overlapping disclosure regarding root cause analysis. (Goldstein-Column 4 Lines 5-10, *'response time exceeds a particular threshold'*, Column 29 Lines 10-20, Column 36 Lines 45-50, *'selected by the RCA system 168 because their performance exceeded a user-specified or default threshold'* )

Luo and Goldstein are analogous art because they present concepts and practices regarding the presentation of network performance indicators. Thus it would have been obvious to combine Goldstein with Luo, in order to store performance information for the network objects at predetermined time intervals. The motivation for said combination would have been provide isolation of the root cause of the performance degradation (Goldstein-Column 2 Lines 20-30).

Claim 31 (re. computer system) and Claim 55 (re. an article) rejected on the same basis as Claim 1.

Luo-Goldstein disclosed (re. Claim 2,32) associating a first visual indicator with one or more of the displayed network objects associated with the at least one potential root cause. (Luo-Column 9 Lines 55-65, Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 3,33) associating a second visual indicator with one or more objects that are identified as the potential root cause objects. (Luo-Column 9 Lines 55-65)

The Examiner notes that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

Luo-Goldstein disclosed (re. Claim 4,34) wherein the second visual indicator is associated with objects at a device level. (Luo-Column 12 Lines 35-40)

Luo-Goldstein disclosed (re. Claim 5,35,56) displaying a first region for a first type of network object and a second region for a second type of network object. (Luo-Figure 8, Column 10 Lines 20-35)

Luo-Goldstein disclosed (re. Claim 6) selecting the first and second regions from one or more of hosts, connectivity devices, and storage devices. (Luo- Column 10 Lines 45-65)

Luo-Goldstein disclosed (re. Claim 7,36,37) visually identifying a first one of the plurality of cells that corresponds to configuration and trigger information for the map. (Luo-Figure 7, Column 9 Lines 55-65, '*visually map outstanding trouble tickets*')

Luo-Goldstein disclosed (re. Claim 8,38) wherein certain ones of the displayed network objects are expandable to show devices associated therewith. (Luo- Column 10 Lines 45-65, Goldstein-Column 31 Lines 35-40, '*expandable tree*')

Luo-Goldstein disclosed (re. Claim 9,39,57) displaying a list of devices associated with a selected one of the displayed network objects. (Luo- Column 10 Lines 45-65)

Luo-Goldstein disclosed (re. Claim 10,40,58) displaying performance data for one or more of the listed devices. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 11,41,59) visually identifying a first one of the listed devices as a root cause. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 12) identifying the first one of the listed devices as the root cause based upon exceeding a threshold for the performance data metric. (Goldstein-Column 4 Lines 5-10, *'response time exceeds a particular threshold* , Column 29 Lines 10-20 , Column 36 Lines 45-50, *'selected by the RCA system 168 because their performance exceeded a user-specified or default threshold'* )



Luo-Goldstein disclosed (re. Claim 13,42) including adding a selected one of the listed devices to the map. (Goldstein-Column 13 Lines 10-15, Column 14 Lines 65)

Luo-Goldstein disclosed (re. Claim 14) displaying expanded views of selected ones of the displayed objects. (Luo- Column 10 Lines 45-65, Goldstein-Column 31 Lines 35-40, '*expandable tree*')

Luo-Goldstein disclosed (re. Claim 15) displaying expanded views of selected ones of the displayed objects including objects not associated with the triggers. (Luo- Column 10 Lines 45-65, Goldstein-Column 31 Lines 35-40, '*expandable tree*')

Luo-Goldstein disclosed (re. Claim 16) displaying a hierarchical view of network objects. (Luo- Column 10 Lines 45-65, Goldstein-Column 31 Lines 35-40, '*expandable tree*')

Luo-Goldstein disclosed (re. Claim 17,43, 60) displaying a graph of performance data of a first metric for a first one of the displayed objects. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 18,44) displaying a threshold for the first metric. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 20) displaying the performance data over time. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein disclosed (re. Claim 21,46,47,48) displaying the performance data for a period of time selected by a user. (Goldstein-Figure 32-37, Column 5 Lines 10-30, Column 43 Lines 1-5)

Luo-Goldstein disclosed (re. Claim 30,54,63) setting a threshold as a logical combination of a plurality of metrics. (Goldstein-Column 32 Lines 10-25)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of Bertram (US Patent 6667743 ).

While Luo-Goldstein substantially disclosed the claimed invention Luo-Goldstein did not disclose (re. Claim 19,45) adjusting the threshold based upon user instruction via graphical user interaction.

Bertram disclosed (re. Claim 19 ,45) adjusting the threshold based upon user instruction via graphical user interaction. (Bertram-Figure 4A, 4B,Column 9 Lines 30-45)

Luo,Goldstein, and Bertram are analogous art because they present concepts and practices regarding the presentation of network performance indicators. Thus it would have been obvious to combine Bertram with Luo-Goldstein. The motivation for said combination would have been to allow for displaying selected data without unduly cluttering the display. (Bertram-Column 4 Lines 25-30).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22,49,61 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of Rochford (US Patent 6654803).

While Luo-Goldstein substantially disclosed the claimed invention Luo-Goldstein did not disclose (re. claim 22,49,61) moving a slider to a desired time and synchronizing the map to a configuration at the desired time.

Rochford disclosed (re. claim 22,49,61) moving a slider to a desired time and synchronizing the map to a configuration at the desired time. (Rochford-Figure 3)

Luo, Goldstein, and Rochford are analogous art because they present concepts and practices regarding the presentation of network performance indicators. Thus it would have been obvious to combine Rochford with Luo-Goldstein. The motivation for said combination would have been to enable viewing of the relationship between time and network events. (Rochford-Column 3 Lines 60-65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29,50-53,62 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of Carley (US Patent 7069177)

While Luo-Goldstein substantially disclosed the claimed invention Luo-Goldstein did not disclose (re. Claim 23) displaying statistical bands about the performance data.

Carley disclosed (re. Claim 23) displaying statistical bands about the performance data. (Carley-Column 4 Lines 60-65, *' history of performance data statistics...about performance of network services that are outside acceptable tolerance or control limits'*)

Luo,Goldstein, and Carley are analogous art because they present concepts and practices regarding the presentation of network performance indicators. Thus it would

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have been obvious to combine Carley with Luo-Goldstein. The motivation for said combination would have been to allow user to compare baseline, acceptable and current conditions. (Carley-Column 3 Lines 15-20)

Claims 50,62 are rejected on the same basis as Claim 23.

Luo-Goldstein-Carley disclosed (re. Claim 24,51) wherein the statistical bands are defined by a statistical relationship to historical data. (Carley-Column 4 Lines 60-65, *history of performance data statistics...about performance of network services that are outside acceptable tolerance or control limits*)

Luo-Goldstein-Carley disclosed (re. Claim 25) receiving a user selection of a time period for the historical data. (Goldstein-Figure 32-37, Column 5 Lines 10-30, Column 43 Lines 1-5)

Luo-Goldstein-Carley disclosed (re. Claim 26,52) defining the statistical bands by using standard deviations from historical data. (Carley-Figure 5, Column 14 Lines 55-65)

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Luo-Goldstein-Carley disclosed (re. Claim 27,53) defining the statistical bands as about 1.5 standard deviations from the historical data. (Carley-Figure 5, Column 14 Lines 55-65)

Luo-Goldstein-Carley disclosed (re. Claim 28) defining the statistical bands as about 1.5 standard deviations plus or minus about ten percent. (Carley-Figure 5, Column 14 Lines 55-65)

Luo-Goldstein-Carley disclosed (re. Claim 29) wherein the statistical bands are displayed for performance data of writes per second for a device. (Goldstein-Column 27 Lines 45-50)

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures

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may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to the enclosed PTO-892 form.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Greg Benzgon  
Patent Examiner, AU 2144